

REMARKS

Claims 1-20 are pending. Claims 1, 13, 17 and 19 are independent claims.

In an office action dated March 8, 2005, the examiner used Wical to reject claims 1-4, 8-10 and 13-20 as having been anticipated.

Applicant's claims 1, 13, 17 and 19, as amended, recite "generating a grammar around the concept labels," or similar language. Wical neither describes nor suggests this quoted claim feature. Wical does no grammar generation. On the contrary, Wical uses a pre-existing grammar parser:

The linguistic engine 700, which includes a grammar parser and a theme parser, processes the document set 130 by analyzing the grammatical or contextual aspects of each document, as well as analyzing the stylistic and thematic attributes of each document. (Wical, col. 27, lines 44-48)

Further, applicant's claims 1, 13, 17 and 19, as amended, recite "applying the generated grammar to a query to convert the query to a query concept," or similar language. Wical neither describes nor suggests this quoted claim feature. No generated grammar is applied to a query or anything in Wical:

As shown in FIG. 2, the query processing block 175 receives user query and mode information. The mode information selects between a concept knowledge base query (concept query), a document or factual knowledge base query (factual query), or a profile query. A query term processing block 205 divides the query into distinct parts. Different senses are then generated for each part of the query. Typically, words in a query consist of nouns, adjectives, adverbs, and verbs. If the input query consists of an adjective, adverb or verb, then the query term processing 205 converts the query term to a nominal form. For example, the verb "to fish" is converted to "fishing", and the verb "performing" is converted to "performance." If the input query term consists of a noun, then the term is in the proper form for reference to the knowledge base 155.

The query term processing 205 further analyzes query terms to determine whether a noun query term has a mass sense and/or a count sense. For example, the word "baseball", which is the mass sense of the word, has a completely different meaning than the count sense "baseballs." If the word has both a mass sense and a count sense, then the query term processing 205 references both the mass sense and count sense to the knowledge base 155 (i.e., both the mass sense and the count sense are used in query processing).

The noun form of a word may have a different meaning than the nominal form of the word. For example, the noun form of "fish" has a different meaning than the nominal form "to fish", which refers to the act of fishing. When applicable, the query term processing 205 references both the noun

and the nominal form to the knowledge base 155. Because the noun sense of a word may be different than the nominal sense, and the mass sense may be different than the count sense, a separate classification exists for nominal and noun forms as well as for mass and count senses in the knowledge base 155. Accordingly, the query term processing 205 generates, when applicable, the noun form, the nominal form, the mass sense, and the count sense for each part of the input query.

As shown in FIG. 2, the query parts, including the different senses, are input to the concept query processing 200 and factual query processing 210 blocks. The mode selects either the concept query processing 200 or factual query processing 210.

In one embodiment, the query term processing 205 further includes processes for case sensitivity. In general, the process of matching query terms to knowledge base 155 entries is a case sensitive process. For example, if the query term is "Oracle", then, for a match, a knowledge base 155 category/term must include "Oracle." Thus, the entry "oracle" would not match the query term "Oracle." This example illustrates a case sensitive matching system.

The query term processing 205 includes processes to eliminate the case sensitivity problem, when appropriate. The content processing system 110 (FIG. 13) includes a lexicon 760. The lexicon 760 contains information (e.g., definitional characteristics) for a plurality of words. One definitional characteristic defines the part of speech for the corresponding word. For example, the lexicon 760 identifies whether a word is a common noun. Furthermore, the lexicon 760 identifies the amount of content carrying information for a corresponding word. In general, the query term processing 205 utilizes the definitional characteristics in the lexicon to determine whether to generate a lower case term from an upper case term when input as a query term.

In one embodiment, the query term processing 205 generates lower case terms if the corresponding upper case term is both a common noun and a content carrying word. Names, which are proper nouns, are not converted. For query terms converted, both the upper case term and the lower case term are used to process the query. Although certain upper case terms are converted to lower case terms, the original upper case query term is considered more relevant to the original query than the lower case term. (Wical, col. 8, line 40 to col. 9, line 46)

Accordingly, claims 1, 13, 17 and 19 are not anticipated by Wical.

In the Office Action dated March 8, 2005, the examiner also used Wical and Braden-Harder to reject claims 5-7, 11 and 12 as having been obvious.

Claim 1, as amended, includes "generating a grammar around the concept labels" and is not rendered obvious by Wical and Braden-Harder, whether taken separately or in combination. Neither Wical nor Braden-Harder teach or suggest at least this quoted claim feature. Claims 5-7,

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11 and 12 depend upon, and add further limitations to, claim 1. Accordingly, claims 5-7, 11 and 12 are not rendered obvious by the combination of Wical and Braden-Harder.

It is believed that all of the pending claims have been addressed. However, the absence of a reply to a specific rejection, issue or comment does not signify agreement with or concession of that rejection, issue or comment. In addition, because the arguments made above may not be exhaustive, there may be reasons for patentability of any or all pending claims (or other claims) that have not been expressed. Finally, nothing in this paper should be construed as an intent to concede any issue with regard to any claim, except as specifically stated in this paper, and the amendment of any claim does not necessarily signify concession of unpatentability of the claim prior to its amendment.

Respectfully submitted,

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Holland & Knight LLP
10 St. James Avenue
Boston, Massachusetts 02116
Telephone: (617) 573-5879
Facsimile: (617) 523-6850

Kenneth F. Kozik

Kenneth F. Kozik
Reg. No. 36,572